

CLAIMS

1. A locking and drive unit for a rotating body, in particular for motor vehicle wheels in a balancing machine, comprising:
for supporting the rotating body (10) and rotating it about an axis A, a
5 motorized main shaft (20) carrying flange means which define a counteracting surface (26) for the rotating body;
pressing means (31, 32) coaxial with the shaft (20) to axially press the rotating body (10) against said counteracting surface (26) and to lock it relative thereto;
10 a traction rod (40) associated with the main shaft (20) and movable axially relative thereto, and connected to the pressing means to pull them against the counteracting surface (26);
elastic thrust means (45) connected to the traction rod (40) to axially pull, via this latter, the pressing means (31, 32) against the counteracting
15 surface (26) to lock the rotating body (10) relative thereto;
characterised by comprising an impact damping means (60) acting by mutual movement of two of its elements (61, 62) in the same direction as the axis (A) of the main shaft (20) when the traction rod (40) is moved in the sense of pulling the pressing means (31, 32) towards the
20 counteracting surface (26), one of said elements (61, 62) being rigid with the main shaft (20) and the other element being rigid with the traction rod (40).
2. A unit as claimed in claim 1, characterised in that said damping means (60) comprises a closed cylindrical chamber, filled with damping
25 fluid and within which a piston is sealedly slidable, said piston possessing a constricted aperture for passage of damping fluid from one side of the

chamber to the other when the traction rod is moved in the sense of pulling the pressing means against the counteracting surface, said piston and said chamber being rigid with the traction rod and with the cylindrical chamber respectively, or vice versa.

- 5 3. A unit as claimed in claim 2, characterised in that said piston (62) comprises a second through aperture (64) having a unidirectional valve (65) enabling the damping fluid to pass freely from one side of the chamber (61) to the other when the traction rod (40) is moved in the sense of withdrawing the pressing means (31, 32) from the counteracting surface
10 (26).

4. A unit as claimed in claim 2, characterised in that the chamber (61) is defined by a cylindrical enclosure formed within the body of the shaft (20) and coaxial with the axis (A.), said chamber (61) being traversed axially by the traction rod (40), which carries the piston (62) rigid with it.